

REMARKS**Status of the Claims**

Applicants request the Examiner to reconsider the application as amended. Claims 1-32 are pending. Claims 17-32 have been withdrawn from consideration. Claim 1 has been amended. Claims 1-5, 8, 10, 12 and 16 have been rejected. Claims 6-7, 9, 11, and 13-15 have been objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. (Office Action, page 3). Applicants wish to express appreciation to the Examiner for the indication of allowable subject matter.

Claim 1 has been amended to recite "forming an ultrathin high-k dielectric by performing a thinning process on said high-k gate dielectric material, wherein the ultrathin high-k dielectric has a thickness of less than about 3 nm; and, following the thinning process, forming a conductive gate structure on said ultrathin high-k dielectric." Support for this amendment can be found, for example, in applicants' specification, page 6, third paragraph; page 10, last paragraph to page 11, first full paragraph; FIGS. 1A-1D; and FIGS. 3A-3D (where the material shown by reference numeral 30 represents a conductive gate structure).

Rejection of Claims 1-5, 8, 10, 12, and 16 Under 35 U.S.C. § 102(a) in view of Mitsubishi

Claims 1-5, 8, 10, 12, and 16 were rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by U.S. Published Application No. 2003/0104706 to Mitsubishi et al. ("Mitsubishi"). According to the Examiner, Mitsubishi teaches all of the recitation of the rejected claims. (Office Action, pages 2-3).

While not acquiescing to the Examiner's rejection, Applicants have amended claim 1 to recite "following the thinning process, forming a conductive gate structure on said ultrathin high-k dielectric." Applicants, submit that claim 1, as amended, overcomes the rejection based on Mitsubishi.

In contrast to Applicants' amended claim 1, Mitsubishi does not teach a thinning process on a high-k dielectric material and then, *following this thinning process*, forming a conductive gate structure on the ultrathin high-k dielectric. Instead, Mitsubishi teaches forming a gate electrode structure *prior to* its disclosed thinning process. See, e.g., Mitsubishi, page 2, paragraph [0022] ("a third step of patterning the conductive film so as to form a gate electrode . . . a fifth step of removing, by wet-etching, the exposed portion of the metal oxide film . . ."). Indeed, nowhere does Mitsubishi teach or suggest performing a thinning step of high-k dielectric material and then forming a conductive gate electrode. Instead, the reference consistently teaches the opposite — forming a gate electrode prior to any disclosed thinning step. See, e.g., Mitsubishi, page 5, paragraphs [0056] to [0062]; page 77, paragraphs [0077] to [0080]; see also Mitsubishi claim 6. Therefore, for at least this reason, Mitsubishi fails to teach or suggest the method recited in amended claim 1.

Accordingly, applicants submit that claims 1-16 are in immediate condition for allowance.

Conclusion

In view of the foregoing, the rejections should be withdrawn and all pending claims should be allowed.

If prosecution may be further advanced, Examiner is invited to telephone the undersigned to discuss this application.

Applicants believe no fees are due in conjunction with the filing of this Amendment. However, if any additional fees are due, such as a fee for a further extension of time, please charge the fees to Deposit Account No. 50-0510.

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Respectfully submitted,



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